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RH-560 (APC-REX)

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Abstract :

Scaled models of the RH-560 (APC-REX) were tested in the 1.2m Trisomic wind tunnel of National Aeronautical Laboratory. The tests were conducted in two phases, the first phase covered the tests on complete model (1/7.5 scale model of booster and sustainer) and the second phase covered the tests on sustainer alone model (1/6 scale model). These tests were aimed to get the aerodynamic forces and moments covering a Mach number range of 0.5 to 4.0 on complete model and 1.0 to 4.0 on sustainer model and an angle of attack range of -6° to 6° . The results in the form of aerodynamic force and moment coefficients and center of pressure location are presented in this report. Effects of fins, end plates and protrusions are also investigated in these tests.